

RECLAMATION

Managing Water in the West

Final Environmental Assessment

Pit River Tribe – XL Ranch Well Project

July 2010



U.S. Department of the Interior
Bureau of Reclamation
Mid-Pacific Region
Regional Office
Sacramento, CA

Mission Statements

The mission of the Department of the Interior is to protect and provide access to our Nation's natural and cultural heritage and honor our trust responsibilities to Indian Tribes and our commitment to island communities.

The mission of the Bureau of Reclamation is to manage, develop, and protect water and related resources in an environmentally and economically sound manner in the interest of the American public.

**UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION**

MID-PACIFIC REGION

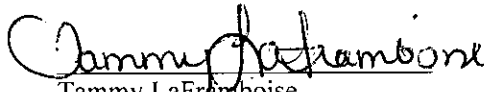
SACRAMENTO, CALIFORNIA

FINDING OF NO SIGNIFICANT IMPACT

Pit River Tribe XL Ranch Well Project

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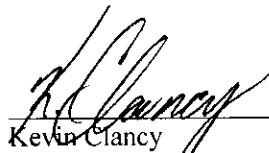
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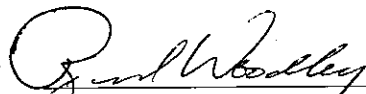
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RECLAMATION
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FINDING OF NO SIGNIFICANT IMPACT

Pit River Tribe XL Ranch Well Project

In accordance with Section 102(2)(c) of the National Environmental Policy Act (NEPA) of 1969, as amended, the Mid-Pacific Regional Office of the Bureau of Reclamation (Reclamation), has determined that providing funds to install an irrigation well and develop a drought plan to provide a secure water source for the Pit River Tribe (Tribe) is not a major federal action that would significantly affect the quality of the human environment and an Environmental Impact Statement (EIS) is not required. This Finding of No Significant Impact is supported by Reclamation's Draft Environmental Assessment (EA), *Pit River Tribe XL Ranch Well Project*, and is hereby incorporated by reference.

BACKGROUND

Pursuant to the *State's Emergency Drought Relief Act of 1991*, as amended (Drought Act), the Bureau of Reclamation (Reclamation) is distributing \$40 million from the American Recovery and Reinvestment Act (ARRA) (P.L. 111-5) to fund emergency drought relief projects. In February 2009, while the State of California was in the third consecutive year of a drought, Governor Schwarzenegger declared a drought emergency.

The Pit River Tribe (Tribe) is suffering from the prolonged drought and experiencing severe effects to the health and safety of tribal members. In compliance with Section 104 of the Drought Act, the Tribe has declared a drought emergency and requested Reclamation's assistance for the purpose of installing an irrigation well, developing a drought plan, and providing additional water supplies to the Tribe's XL Ranch Big Parker Meadow (Ranch).

FINDINGS

Reclamation has prepared an EA which analyzes the impacts of the Proposed Action. Based on the analysis in the EA, Reclamation has found that the installation of an irrigation well at the XL Ranch would not result in significant impacts to the environment and does not require the preparation of an EIS. This Finding of No Significant Impact is based upon the following:

Surface Water Resources - The Proposed Action would neither increase nor decrease surface water in the project area and, therefore, would not result in short-term or long-term adverse impacts to surface water or resources dependent on surface water. Construction activities include drilling, excavation and trenching which have the potential to increase sedimentation into surface waters. Best management practices will be implemented, which includes carrying out the work prior to the rainy season. A buffer of 200 feet will be maintained adjacent to streams, riparian corridors and wetlands (if present). There would be no impacts to surface water as a result of the Proposed Action.

Groundwater Resources - The well would be managed to ensure water use efficiency and water conservation and would pump a minimal amount of water in the area, therefore; the Proposed Action would not result in short-term or long-term adverse impacts to groundwater resources.

Land Use - Under the Proposed Action, the Tribe would drill an irrigation well in an area that has previously been disturbed; therefore, the action would not be changing the historic land use. The Proposed Action does not conflict with any land use plans on the Reservation. There would be no impacts to land use as a result of the Proposed Action.

Biological Resources – The Proposed Action area has previously been disturbed; therefore, the action would not be changing the historic land use practices on the Ranch. Due to the Proposed Action area being previously disturbed, no wilderness designations or unique ecosystem, biological community or its inhabitants are expected to be impacted by the project. There is no sensitive habitat or known special-status species occurrences on the XL Ranch, therefore, the Proposed Action would have no impacts to biological resources.

Cultural Resources - The Proposed Action has the potential to affect cultural resources on the Rancheria. Reclamation determined that no historic properties will be affected by project implementation; therefore, no cultural resources would be impacted as a result of implementing the Proposed Action. Reclamation consulted with the SHPO, as well as with the Tribe on the same basis as the SHPO since this project is located on Tribal lands, regarding this determination. Concurrence from the SHPO and Tribe is pending. The project will not be implemented until the Section 106 compliance process has been completed.

Indian Trust Assets - The nearest ITA is the Pit River Reservation and therefore, the Proposed action would not significantly impact ITAs.

Environmental Justice - The Proposed Action would not disproportionately affect minorities or low-income populations and communities. The Proposed Action would benefit the tribe, a minority population. There would not be significant impacts to human health or environmental effects associated with the Proposed Action.

Global Climate Change - The Proposed Action would not include any significant change on the composition of the atmosphere and therefore would not result in significant impacts to climate change.

Cumulative Impacts – The Proposed Action would not result in significant cumulative impacts to surface water resources, groundwater resources, geology and soils, land use, biological resources, cultural resources, ITAs, environmental justice, or global climate change.

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Figure 1 Pit River Tribe – XL Ranch Location

List of Acronyms and Abbreviations

APE	Area of Potential Effect
ARRA	American Recovery & Reinvestment Act
CNDDB	California Natural Diversity Database
EPA	U.S. Environmental Protection Agency
ESA	Federal Endangered Species Act
FWCA	Fish and Wildlife Coordination Act
gpm	gallons per minute
ITA	Indian Trust Assets
MBTA	Migratory Bird Treaty Act
mg/l	milligrams per liter
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NRHP	National Register of Historic Places
Reclamation	Bureau of Reclamation
SDWR	Secondary Drinking Water Regulation (EPA)
THPO	Tribal Historic Preservation Office
Tribe	Pit River Tribe
USFWS	U.S. Fish and Wildlife Service

Section 1 Purpose and Need for Action

1.1 Introduction

Pursuant to the *State's Emergency Drought Relief Act of 1991*, as amended (Drought Act), the Bureau of Reclamation (Reclamation) is distributing \$40 million from the American Recovery and Reinvestment Act (ARRA) (P.L. 111-5) to fund emergency drought relief projects. In February 2009, while the State of California was in the third consecutive year of a drought, Governor Schwarzenegger declared a drought emergency.

The Pit River Tribe (Tribe) is suffering from the prolonged drought and experiencing severe effects to the health and safety of tribal members. In compliance with Section 104 of the Drought Act, the Tribe has declared a drought emergency and requested Reclamation's assistance for the purpose of installing an irrigation well, developing a drought plan, and providing additional water supplies to the Tribe's XL Ranch Big Parker Meadow (Ranch). Figure 1 shows the location of the Ranch.

1.2 Purpose and Need

The purpose of the Proposed Action is to provide funding to the Tribe for the installation of an irrigation well, development of a drought plan, and provision of additional water supplies to the Tribe's Ranch to allow for the immediate reclamation of one of the most potentially productive areas of the Ranch. This area has been in a state of degradation due to the decrease in surface water supplies from several years of drought and also higher demand of water resources for development off the Reservation.

Installation of the irrigation well would provide an immediate additional water supply to the Ranch to bring it immediately back into commercial agricultural production. The Proposed Action would also provide much needed construction and subsequent agricultural jobs to Tribal ranch crew members, and increase agricultural economic development at the Ranch.

This Environmental Assessment (EA): (1) describes the existing environmental resources in the project area; (2) evaluates the potential effects of the alternatives (including the Proposed Action) on the resources; and (3) proposes measures to avoid, minimize, or mitigate any adverse effects of the Proposed Action. This EA is in compliance with the National Environmental Policy Act (NEPA) and Council on Environmental Quality (CEQ) regulations (40 CFR 1500-1508). Reclamation has also prepared a Finding of No Significant Impact (FONSI) which explains why the Proposed Action would not have a significant effect on the human environment.

Insert Figure 1

1.3 Potential Resource Issues

The resource areas listed below have the potential to be affected by the Proposed Action and are discussed further in Section 3.

- Surface Water Resources
- Groundwater Resources
- Land Use
- Biological Resources
- Cultural Resources
- Indian Trust Assets
- Environmental Justice
- Climate Change

1.4 Resources Not Analyzed in Detail

It was determined that the following resources would not be impacted by the Proposed Action: water quality, fisheries, recreation, air quality, geology and soils, visual, transportation, noise, hazards and hazardous materials, and socioeconomics. Therefore, impacts to these resources are not analyzed in this EA.

Section 2 Alternatives Including Proposed Action

2.1 No Action Alternative

The No Action Alternative includes not drilling an irrigation well for the Tribe. Under this alternative, the Tribe would not be able to provide additional water supplies to the Ranch, thus allowing for the immediate reclamation of one of the most potentially productive areas of the Ranch.

2.2 Proposed Action Alternative

The Tribe proposes to install an irrigation well, develop a drought plan, and provide additional water supplies to the Tribe's Ranch, which would allow for the immediate reclamation of one of the most potentially productive areas of the Ranch. The well would have a pumping capacity of approximately 250 gallons per minute (gpm). The Proposed Action would involve installing an irrigation well up to 1,000-feet deep (with a provision to go to a maximum depth of 1,500 feet) with a proposed 14 to 16 inch casing and 100-foot sanitation seal and pump which would assist in hay crop irrigation. The Proposed Project would include: 1) building three-phase electrical and proposed solar panel powered backup infrastructure to the pump; 2) well and distribution construction; and 3) connecting this water source to existing and improved irrigation infrastructure. It would also further benefit existing agricultural infrastructure by bringing more water for livestock grazing operations in the surrounding range units.

The water from the new well would feed a stand pipe that would allow for connection to a pivot or directly to irrigation pipe. The Tribe would coordinate with the local power company regarding electrical service. It is assumed that the power company would provide one 30 foot wood drop pole adjacent to the well location for the well contractor to install.

Section 3 Affected Environment & Environmental Consequences

3.1 Surface Water Resources

3.1.1 Affected Environment

The closest source of surface water is Gleason Creek, approximately 200-300 feet from the proposed well site and pipeline.

3.1.2 Environmental Consequences

No Action

Under the No Action Alternative, the Tribe would not drill an irrigation well. Under the No Action Alternative, surface water use would neither increase nor decrease and, therefore, would have no impacts to surface water.

Proposed Action

Under the Proposed Action, the Tribe would drill an irrigation well on the XL Ranch. The Proposed Action would neither increase nor decrease surface water in the project area and, therefore, would not result in short-term or long-term adverse impacts to surface water or resources dependent on surface water. Construction activities include drilling, excavation and trenching which have the potential to increase sedimentation into surface waters. Best management practices will be implemented, which includes carrying out the work prior to the rainy season. A buffer of 200 feet will be maintained adjacent to streams, riparian corridors and wetlands (if present). There would be no impacts to surface water as a result of the Proposed Action.

Cumulative Effects

The Proposed Action would not contribute to changes in surface water and therefore; would not contribute to cumulative effects to surface water resources.

3.2 Groundwater Resources

3.2.1 Affected Environment

The Reservation is located within the Alturas Groundwater Basin. The South Fork Pit River Groundwater Subbasin is bounded on the east by Plio-Pleistocene basalt and Pleistocene Pyroclastic rocks of the Warner Mountains, to the north by Pleistocene basalt of Devils Garden, to the south by Plio-Pleistocene basalt, and to the west by Warm Springs tuff. The South Fork Pit River enters the basin near the community of Likely and flows north through the South Fork Pit River Valley to its confluence with the North Fork Pit at the town of Alturas. Annual precipitation ranges from 13- to 19- inches (DWR 2004).

Holocene Sedimentary Deposits. The Holocene sedimentary deposits include alluvial fan deposits, intermediate alluvium, and basin deposits – each up to a thickness of 75 feet. Alluvial fan deposits consist of unconsolidated to poorly consolidated, crudely

stratified silt, sand and gravel with lenses of clay. These deposits generally have high permeability and are capable of yielding large amounts of water to wells. This unit may include confined as well as unconfined water. Intermediate alluvium consists of unconsolidated poorly sorted silt and sand with some lenses of gravel. These deposits have moderate permeability and yield moderate amounts of water to shallow wells. Basin deposits consist of unconsolidated, interstratified clay, silt and fine sand. These deposits have moderate to low permeability and yield small amounts of water to wells.

Groundwater Storage Capacity. The groundwater storage capacity to a depth of 800 feet is estimated to be approximately 7,500,000 acre feet for the entire Alturas Groundwater Basin (including the South Fork Pit River Subbasin and the Warm Springs Valley Subbasin).

3.2.2 Environmental Consequences

No Action

Under the No Action Alternative, the Tribe would not drill an irrigation well on the XL Ranch. Under the No Action Alternative, the Tribe would continue with current practices and no additional groundwater resources would be affected.

Proposed Action

Under the Proposed Action, the Tribe would drill an irrigation well with a pumping capacity of approximately 1,500 gpm. The well would be managed to ensure water use efficiency and water conservation and would pump a minimal amount of water in the area, therefore; the Proposed Action would not result in short-term or long-term adverse impacts to groundwater resources.

Cumulative Effects

The Proposed Action would not result in adverse impacts to groundwater resources and due to the fact that at this time there are no additional projects planned on the XL Ranch, the Proposed Action would not contribute to cumulative impacts to groundwater resources.

3.3 Land use

3.3.1 Affected Environment

The Pit River Tribe's reservation is composed of approximately 23,000 acres of public allotment, trust and fee title lands spread across the ancestral reservation of the 100 miles square comprising a portion of Shasta, Siskiyou, Lassen, and Modoc counties in northeast California. The Tribe's XL Ranch Indian Reservation in Modoc County is composed of approximately 13,000 acres near Alturas, California and on Goose Lake. Of this land, there is approximately 2,000 total acres of arable land that (within the XL Ranch) was conveyed to the Pit River Tribe in 1986 for agricultural economic development. For all of the years of operation at the Ranch, the Tribe was able to rely on natural springs, underground seepages flowing upward off the many basaltic lava flows in the area, and adjudicated water rights and flows from the North Fork Pit River, and tributary creeks such as Joseph, South Parker, Spring Canyon, Gleason, Big Parker and Thoms creeks to

provide enough water for some grain crops, but mostly for commercial hay production. Unfortunately, there have been repeated cycles of several years of drought in the last few decades, as well as intense agricultural and new housing developments on the land and ranches surrounding the Ranch. There are five large ranching enterprises and hundreds of other stakeholders on the tributary watersheds that feed the Ranch. Each of these draw from the natural aquifers in the area feeding the surface and groundwater for which the Ranch relies, vying for water resources in an area that receives on average 13 inches of precipitation, of which is mostly in the form of snow.

For its agricultural operations, the Ranch relies entirely on the adjudicated water rights it has for the North Fork Pit River and some of its tributaries for irrigation. These resources have been significantly impacted by several years of repeated drought cycles, lower flows in the North Fork Pit River and its tributaries, and the disappearance of the natural seepages, springs and surface flows in the area due to historic drought and the heavier sub-surface usage caused by increases in agricultural production and residential development. The Ranch currently utilizes an irrigation system of irrigation ditches and flood irrigation to sustain hay production along the North Fork Pit River and South Parker Creek meadows. The current area in hay production comprises a fraction of the historically available arable land, now at approximately 400 acres, versus potentially 1,000 acres. There was anecdotal mention that these meadows also used to get two cuts of meadow hay a season from higher flows, but more recently only get one.

Big Parker meadow, once considered one of the most productive areas on the Ranch, and the area in consideration for the main portion of the project, has had its surface and irrigation flows cut back so drastically that the historical gain and hay crops produced in this area have ceased altogether. This area of the Ranch has been reduced to rangeland grazing. This has led to having the land selectively revert to undesirable plant species (*Juniperus* spp., *Onopordum* spp., etc.) within the current livestock grazing-only regime. This species succession has commensurately reduced the range and composition of desirable and economically viable plant species that once inhabited this area. These changes also negatively impact the surface soil structure, leading to more widespread invasion. The area of Big Parker meadow, through previous soil and productivity studies by Tribal consultants and the Modoc County Natural Resources Conservation Service was shown to have one of the best potentials and soil profiles of all the arable lands on the Ranch. At the current agricultural production levels, the Tribe's major economic development endeavors at the Ranch are no longer self-sustaining. The irrigation well and infrastructure would allow for the Tribe to develop an alternative and complementary water supply during drought years. Additionally, this water source could be further developed to distribute water to other immediate areas of the ranch also affected by drought conditions. This could be done through the development of pivots or wheel lines, watering lines to feed surrounding livestock ponds and troughs, and further provide a dependable water supply to the current and new fields and range grazing units for which the Tribe depends on economically.

3.3.2 Environmental Consequences

No Action

Under the No Action Alternative, the Tribe would not drill an irrigation well. The Tribe would not be able to irrigate one of its most productive areas for ranching and as such, land use could change at XL Ranch under the No Action Alternative.

Proposed Action

Under the Proposed Action, the Tribe would drill an irrigation well in an area that has previously been disturbed; therefore, the action would not be changing the historic land use. The Proposed Action does not conflict with any land use plans on the Reservation. There would be no impacts to land use as a result of the Proposed Action.

Cumulative Effects

The Proposed Action is located in an area that has previously been disturbed and would only require permanent disturbance to an area of approximately less than 1 acre. Hence, the Proposed Action would not contribute to cumulative impacts on land use.

3.4 Biological Resources

3.4.1 Affected Environment

A species list, included in Table 1 below, was generated from the USFWS Klamath Falls Fish and Wildlife Office's website on July 7, 2010 (USFWS 2010).

Table 1: Species Identified as Potentially Occurring in Modoc County, CA

Common Name	Scientific Name	Federal Status ¹	Habitat in Area
FISH			
<i>Catostomus microps</i>	Modoc sucker	E	No
<i>Deltistes luxatus</i>	Lost River sucker	E	No
<i>Chasmistes brevirostris</i>	Shortnose sucker	E	No
AMPHIBIANS			
<i>Rana pretiosa</i>	Oregon spotted frog	T	No
BIRDS			
<i>Coccyzus americanus</i>	Western yellow-billed cuckoo	C	No
<i>Centrocercus urophasianus</i>	Greater sage grouse	C	No
<i>Strix occidentalis caurina</i>	Northern spotted owl ²	T	No
MAMMALS			
<i>Martes pennant</i>	Fisher	C	No
PLANTS			
<i>Tuctoria greenei</i>	Green's tuctoria	E	No
<i>Orcuttia tenuis</i>	Slender Orcutt grass	T	No
<i>Potentilla basaltica</i>	Soldier Meadow cinquefoil	C	No

¹ E=Endangered, T=Threatened, C=Candidate

² Critical Habitat designated for this species

Non-listed species that could occur in the surrounding area include: mule (black-tailed) deer (*Odocoileus hemionus*), black-tailed Jackrabbit (*Lepus* spp.), opossum (*Didelphis marsupialis*), coyote (*Canis latrans*), raccoon (*Procyon lotor*), gray fox (*Urocyon*

cinereoargenteus), striped skunk (*Mephitis mephitis*), raven (*Corvus corax*), robin (*Turdus migratorius*), Steller's jay (*Cyanocitta stelleri*), killdeer (*Charadrius vociferous*), and red-tailed hawk (*Buteo jamaicensis*).

3.4.2 Environmental Consequences

No Action

Under the No Action Alternative, the Tribe would not drill an irrigation well and would continue their current land use practices resulting in no adverse impacts to biological resources.

Proposed Action

Under the Proposed Action, the Tribe would drill an irrigation well on the XL Ranch. The Proposed Action area has previously been disturbed; therefore, the action would not be changing the historic land use practices on the Ranch. Due to the Proposed Action area being previously disturbed, no wilderness designations or unique ecosystem, biological community or its inhabitants are expected to be impacted by the project. There is no sensitive habitat or known special-status species occurrences on the XL Ranch, therefore, the Proposed Action would have no impacts to biological resources.

Cumulative Effects

The Proposed Action would not result in adverse impacts to biological resources and due to the fact that at this time there are no additional projects planned on the XL Ranch, the Proposed Action would not contribute to cumulative impacts to biological resources.

3.5 Cultural Resources

3.5.1 Affected Environment

A cultural resource is a broad term that includes prehistoric, historic, architectural, and traditional cultural properties. The National Historic Preservation Act (NHPA) of 1966 is the primary Federal legislation that outlines the Federal Government's responsibility to cultural resources. Section 106 of the NHPA requires the Federal Government to take into consideration the effects of an undertaking on cultural resources listed on or eligible for inclusion on the National Register of Historic Places (NRHP). Those resources that are on or eligible for inclusion on, the NRHP are referred to as historic properties.

The Section 106 process is outlined in the Federal regulations at 36 Code of Federal Regulations (CFR) Part 800. These regulations describe the process that the Federal agency (Reclamation) takes to identify cultural resources and the level of effect that the proposed undertaking would have on historic properties. In summary, Reclamation must first determine if the action is the type of action that has the potential to affect historic properties. If the action is the type of action to affect historic properties, Reclamation must identify the area of potential effects (APE) (Figure 2), determine if historic properties are present within that APE, determine the effect that the undertaking would have on historic properties, and consult with the State Historic Preservation Office (SHPO), to seek concurrence on Reclamation's findings. In addition, Reclamation is required through the Section 106 process to consult with Indian Tribes concerning the

identification of sites of religious or cultural significance, and consult with individuals or groups who are entitled to be consulting parties or have requested to be consulting parties.

In an effort to identify historic properties, a Reclamation Archaeologist searched the cultural resources files located at the Bureau of Indian Affairs. Reclamation initiated an expedited records search by the Northeastern Information Center in Chico, California on May 25, 2010 for the APE. Reclamation contracted ICF International, who conducted cultural resources surveys of the Project Area on July 2, 2010. One cultural resource, a small lithic scatter (PLS-1), was identified within the Project Area (Crawford 2010). The site consists of approximately 50 pieces of debitage, including mahogany, black, and dark gray obsidian, and a small amount of dark gray basalt flakes representing primary and secondary lithic reduction. There appears to be no buried component. The site is located 5 meters east of a dirt two-track road. This site was not evaluated for inclusion on the National Register of Historic Places because the proposed power line alignment will be constructed on the west side of the dirt road, avoiding the site.

Reclamation sent a letter to the Pit River Tribe on July 23, 2009 to invite their assistance in identifying sites of religious and cultural significance pursuant to the regulations at 36 CFR 800.3(f)(2) and 36 CFR Part 800.4(a)(4). Reclamation consulted with the State Historic Preservation Officer (SHPO) on July 28, 2010 regarding a findings of no historic properties affected pursuant to 36 CFR Part 800.4(d)(1). Reclamation also consulted with the Pit River Tribe of California on the same basis as the SHPO on July 29, 2010 pursuant to the regulations at 36 CFR Part 800.3(d) since this project is located on Tribal lands. Concurrence from the SHPO and Pit River Tribe to conclude the Section 106 compliance process is pending.

3.5.2 Environmental Consequences

No Action

Under the No Action Alternative, there are no impacts to cultural resources since there would be no change in operations and no ground disturbance. Conditions related to cultural resources would remain the same as existing conditions.

Proposed Action

The Proposed Action is the type of activity that has the potential to affect historic properties. A records search, pedestrian survey, and Tribal consultation identified one cultural resource, PLS-1, which will be avoided by all project activities. Since no historic properties will be affected, no cultural resources will be impacted as a result of implementing proposed action.

Cumulative Effects

The Proposed Action has the potential to affect cultural resources on the Rancheria. Since Reclamation determined that no historic properties will be affected, no cultural resources would be impacted as a result of implementing the Proposed Action. Reclamation consulted with the SHPO on July 28, 2010, as well as with the Tribe on July 29, 2010 on the same basis as the SHPO since this project is located on Tribal lands,

regarding this determination. Concurrence from the SHPO and Tribe is pending. The project will not be implemented until the Section 106 compliance process has been completed.

3.6 Indian Trust Assets

3.6.1 Affected Environment

Indian Trust Assets (ITAs) are legal interests in property or rights held in trust by the United States for Indian Tribes or individuals. Trust status originates from rights imparted by treaties, statutes, or executive orders. These rights are reserved for, or granted to, tribes. A defining characteristic of an ITA is that such assets cannot be sold, leased, or otherwise alienated without Federal approval.

Indian reservations, rancherias, and allotments are common ITAs. Allotments can occur both within and outside of reservation boundaries and are parcels of land where title is held in trust for specific individuals. Additionally, ITAs include the right to access certain traditional use areas and perform certain traditional activities.

It is Reclamation policy to protect ITAs from adverse impacts resulting from its' programs and activities whenever possible. Types of actions that could affect ITAs include an interference with the exercise of a reserved water right, degradation of water quality where there is a water right or noise near a land asset where it adversely affects uses of the reserved land.

3.6.2 Environmental Consequences

No Action

Under the No Action Alternative, the Tribe would not drill an irrigation well and would continue their current land use practices resulting in no adverse impacts to ITAs.

Proposed Action

Under the Proposed Action Alternative, the Tribe would drill a second drinking water well on the Reservation. The Proposed Action does not affect ITAs. The project location is inside an ITA, the Table Bluff Reservation.

Cumulative Effects

The Proposed Action would not result in adverse impacts to ITAs and, therefore, would not contribute to cumulative impacts to ITAs.

3.7 Environmental Justice

3.7.1 Affected Environment

Executive Order 12898 requires each Federal agency to achieve environmental justice as part of its mission, by identifying and addressing disproportionately high adverse human health or environmental effects, including social and economic effects, of its programs and activities on minority populations and low-income populations of the United States.

3.7.2 Environmental Consequences

No Action

Under the No Action Alternative, the Tribe would not drill an irrigation well on the Reservation. The Tribe would not be able to provide irrigation water for its members and their way of life may be compromised as a result which would be an adverse impact to Tribe members and, thus, an adverse impact to environmental justice.

Proposed Action

Under the Proposed Action, the Tribe would drill an irrigation well on the XL Ranch. The Proposed Action would not disproportionately impact economically disadvantaged or minority populations. In fact, the Proposed Action would address existing negative effects upon a minority population and improve the standard of living by providing clean water. The Proposed Action would not cause environmental justice issues.

Cumulative Effects

As the Proposed Action does not have the potential to cause adverse impacts to economically disadvantaged or minority populations, and in fact would actually benefit the Tribe by providing clean water on the Reservation, the Proposed Action could potentially result in cumulative benefits for the Tribe.

3.8 Global Climate Change

3.8.1 Affected Environment

The United Nations Intergovernmental Panel on Climate Change predicts that changes in the earth's climate will continue through the 21st century and that the rate of change may increase significantly in the future because of human activity. Many researchers studying California's climate believe that changes in the earth's climate have already affected California and will continue to do so in the future. Climate change may seriously affect the State's water resources. Temperature increases could affect water demand and aquatic ecosystems. Changes in the timing and amount of precipitation and runoff could occur.

Climate change is identified in the 2005 update of the California Water Plan (Bulletin 160-05) as a key consideration in planning for the State's future water management. The 2005 Water Plan update qualitatively describes the effects that climate change may have on the State's water supply. It also describes efforts that should be taken to quantitatively evaluate climate change effects for the next Water Plan update.

3.8.2 Environmental Consequences

No Action

Under the No Action Alternative, the Tribe would not drill an irrigation well and would have no effect on climate change.

Proposed Action

Under the Proposed Action, the Tribe would drill an irrigation well on the Reservation. The Proposed Action would not include any significant change on the composition of the atmosphere and therefore would not result in adverse impacts to climate change.

Cumulative Effects

The Proposed Action would not result in adverse impacts to climate change and, therefore, would not contribute to cumulative impacts to climate change.

Section 4 Consultation and Coordination

4.1 Federal Laws and Executive Orders

The following federal laws were considered during the preparation of this EA and the evaluation of the potential impacts from the Proposed Action.

4.1.1 Fish and Wildlife Coordination Act (16 USC. 651 et seq.)

The Fish and Wildlife Coordination Act (FWCA) requires that Reclamation consult with fish and wildlife agencies (federal and state) on all water development projects that could affect biological resources. There are no listed, proposed, or species of concern in the project area; therefore, no consultation is required.

4.1.2 Endangered Species Act (16 USC. 1521 et seq.)

Section 7 of this Act requires Federal agencies to ensure that all federally associated activities within the United States do not jeopardize the continued existence of threatened or endangered species or result in the destruction or adverse modification of the critical habitat of these species. Action agencies must consult with the U.S. Fish and Wildlife Service, which maintains current lists of species that have been designated as threatened or endangered, to determine the potential impacts a project may have on protected species. Reclamation determined that the Proposed Action would have “no effect” on federally proposed or listed threatened and endangered species or their proposed or designated critical habitat. No further consultation is required under Section 7 of the Endangered Species Act.

4.1.3 Migratory Bird Treaty Act (16 USC § 703 ET SEQ.)

The Migratory Bird Treaty Act implements various treaties and conventions between the U.S. and Canada, Japan, Mexico and the former Soviet Union for the protection of migratory birds. Unless permitted by regulations, the Act provides that it is unlawful to pursue, hunt, take, capture or kill; attempt to take, capture or kill; possess, offer to or sell, barter, purchase, deliver or cause to be shipped, exported, imported, transported, carried or received any migratory bird, part, nest, egg or product, manufactured or not. Subject to limitations in the Act, the Secretary of the Interior (Secretary) may adopt regulations determining the extent to which, if at all, hunting, taking, capturing, killing, possessing, selling, purchasing, shipping, transporting or exporting of any migratory bird, part, nest or egg will be allowed, having regard for temperature zones, distribution, abundance, economic value, breeding habits and migratory flight patterns. The Proposed Action does not involve removal of trees that could have an effect on migratory birds.

4.1.4 National Historic Preservation Act (16 USC 470 et seq.)

The National Historic Preservation Act (NHPA) of 1966 is the primary Federal legislation which outlines the Federal Government's responsibility to cultural resources. Section 106 of the NHPA requires the Federal Government to take into consideration the effects of an undertaking listed on cultural resources on or eligible for inclusion in the National Register of Historic Places (National Register). Those resources that are on or eligible for inclusion on the National Register are referred to as historic properties.

4.1.5 Environmental Justice (Executive Order 12898)

Executive Order 12898, Federal Actions to Address Environmental Justice in Minority and Low-Income Populations, as amended, directs federal agencies to develop an Environmental Justice Strategy that identifies and addresses disproportionately high and adverse human health or environmental effects of their programs, policies, and activities on minority populations and low-income populations. According to the Council on Environmental Quality's guidance, agencies should consider the composition of the affected area to determine whether minority populations, low-income populations, or Indian Tribes are present in the area affected by the Proposed Action, and if so, where there may be disproportionately high and adverse environmental effects. The Proposed Action would have a negligible beneficial impact on environmental justice by temporarily increasing employment and income during installation of the new wells. The Proposed Action would support the Tribe by providing reliable water supply on the Reservation, and is thus beneficial to the Tribe.

Section 5 List of Preparers and Reviewers

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Section 6 References

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Crawford, Karen L. 2010. *Cultural Resources Inventory for ARRA Tribal Wells and Water Projects, Cedarville Rancheria, Fort Bidwell Indian Community, and Pit River Tribe of California, Modoc County, California, Reclamation #s 10-NCAO-215, 10-LBAO-139, 10-NCAO-154*. Prepared by ICF International. Report on file at the Bureau of Reclamation, Mid-Pacific Regional Office, Sacramento, California.

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Appendix A - Photos of Potential Well Location



View #1 of Proposed Well Site



View #2 of Proposed Well Site



View #3 of Proposed Well Site



View #4 of Proposed Well Site



View #5 of Proposed Well Site



View #6 of Proposed Well Site